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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/855,868	05/14/2001	Warren Snyder	CYPR-CD00181	1183

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EXAMINER

FIELDS, COURTNEY D

ART UNIT	PAPER NUMBER
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2137

DATE MAILED: 08/26/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/855,868

Applicant(s)

SNYDER, WARREN

Examiner

Courtney D. Fields

Art Unit

2137

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 May 2001.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 2
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____

DETAILED ACTION

1. Claims 1-17 are pending.
2. The Information Disclosure Statement respectfully submitted on 22 January 2003 have been considered by the Examiner.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-4, 8-9, 11, 14-15, and 17 are rejected under 35 U.S.C. 102(e) as being anticipated by Feng et al. (U.S. Patent No. 6,339,815) (hereinafter Feng).

As per claims 1 and 14, Feng discloses a microcontroller with program memory space allocation means. The security functions of the microcontroller system prevents accessing a block of memory in response to an access request to the block of memory in Column 1, lines 65-67, Column 2, lines 1-50, ascertaining a security rule associated with the block of memory applying the security rule according to a security algorithm to determine if the access request is authorized, and denying the access request in the event the access request is unauthorized in Column 2, lines 51-67, Column 3, lines 1-

Art Unit: 2137

As per claim 2, Feng discloses the claimed limitation wherein the access request comprises one of a read request and a write request in Column 2, lines 54-58.

As per claim 3, Feng discloses the claimed limitation wherein the memory block comprises one of a plurality of memory blocks in Column 2, lines 7-24, Column 3, lines 18-32.

As per claims 4 and 11, Feng discloses the claimed limitation wherein the plurality of memory blocks comprise nonvolatile memory (i.e.) flash memory) residing on the microcontroller in Column 2, lines 25-36, Column 18-32.

As per claims 8 and 17, Feng discloses the claimed limitation wherein a microcontroller having an electronic storage medium that stores instructions which, when executed on a processor forming a part of the microcontroller, carrying out a process in Column 4, lines 1-54.

As per claim 9, Feng discloses a method of accessing memory, comprising: mapping a security level to each block of a plurality of memory blocks and storing the mapping in a table, in response to an access request to a specified block of memory, determining the security level for the specified block of memory, applying the security algorithm using the security level to determine if the access request is authorized by the algorithm, and denying the access request in the event the access request is unauthorized in Column 2, lines 66-67, Column 3, lines 1-10, and Figures 3A and 3B.

As per claim 15, Feng discloses the claimed limitation wherein the determining comprises authorizing the request to change the security rule if the request comprises a

request to increase the security of the block of memory in Column 1, lines 23-31,
Column 5, lines 9-12.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 5-7, 10, 12-13, and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Feng et al. (U.S. Patent No. 6,339,815) (hereinafter Feng) in view of Moughanni et al. (U.S. Patent No. 6,003,133) (hereinafter Moughanni). Feng discloses the elements of claims 1-4, 8-9, 11, 14-15 as substantially outlined above. However, Feng fails to explicitly disclose the security levels in which determine read and write access based upon supervisory mode. Therefore, Moughanni discloses a control logic circuit which provides an enable signal input indicating if an access request is authorized, and denying the access request in the event the access request is unauthorized in Column 3, lines 4-65. As per claims 5, 6, and 16, Moughanni discloses the claimed limitation wherein the security rule comprises one of a plurality of security levels assigned to the block memory, the security levels defining ability of a programmer to read or write to the block of memory in Column 2, lines 43-67, Column 3, lines 1-15. As per claims 7 and 10, Moughanni discloses the claimed limitation wherein the security rule comprises one of a plurality of security levels assigned to the block memory, the

Art Unit: 2137

plurality of security levels comprising levels which represent progressively greater security against unauthorized access to the block of memory in Column 3, lines 33-64.

As per claims 12 and 13, Moughanni discloses the claimed limitation wherein the table and the security algorithm is stored in a supervisory nonvolatile read only memory on the microcontroller in Column 3, lines 66-67, Column 4, lines 1-28, and Table T-1.

It would be obvious to one of ordinary skill in the art at the time the invention was made to apply security levels for accessing memory within a microcontroller as shown in Feng. Motivation for such an implementation would enable the method to determine if an access request is unauthorized by applying security levels for each user, restricting entry into the operating system as shown in Moughanni, Column 1, lines 59-63)

Conclusion

1. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Grimmer, Jr. et al. (U.S. Patent No. 5,737,760) discloses a microcontroller with security logic circuit which prevents reading of internal memory by external programs.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Courtney D. Fields whose telephone number is 571-272-3871. The examiner can normally be reached on Mon - Wed. 6:00 - 6:00 pm; Thur. 6:00 - 10 am.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew Caldwell can be reached on 571-272-3868. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



cdf

August 16, 2004


Andrew Caldwell